

The Highwayman

Snow Plows Clearing Detour
near Asbury, January 21, 1922

The Highwayman Is Out
For More and Better Roads
in New Jersey

February, 1922
Vol. I
No. 7

Where Do You Stand on Your Highways?

Say, now that we've been giving the highway workers, from the Highway Commission to the pick and shovel men, the "once-over", for the past few issues, lets turn the limelight on the auto-owners.

Let's speak right out in meeting.

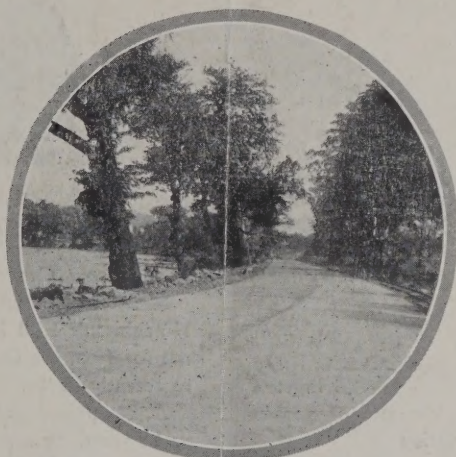
First of all, how many of us guys who *use* the highways ever give one serious thought to the whole problem of highway policy—construction, maintenance and—financing?

Haven't we just got into the habit of taking our roads *for granted*? And felt we were doing *our* part if we cussed the Highway Department ever time we had to detour?

Read what Highway Officials of the country, at their last Annual Convention, had to say regarding *our* attitude. You'll find it in the last six paragraphs on page 8.

Motor-owners, this is your problem, no less than that of those who are building and keeping the roads you use.

Don't try to pass the buck—you, every one of you, must give this problem your personal attention.



Road at Budd Lake

This road parallels the lake, and was built by inmate labor under the direction of State Labor Division

Wherever Found— They Meant You, You Highwayman.

"Resolved; that this organization pledges itself to work for—the reward of ability wherever found."

Boys, when the American Association of Highway Officials passed that resolution, they had you

fellows in mind.

And they meant what they said.

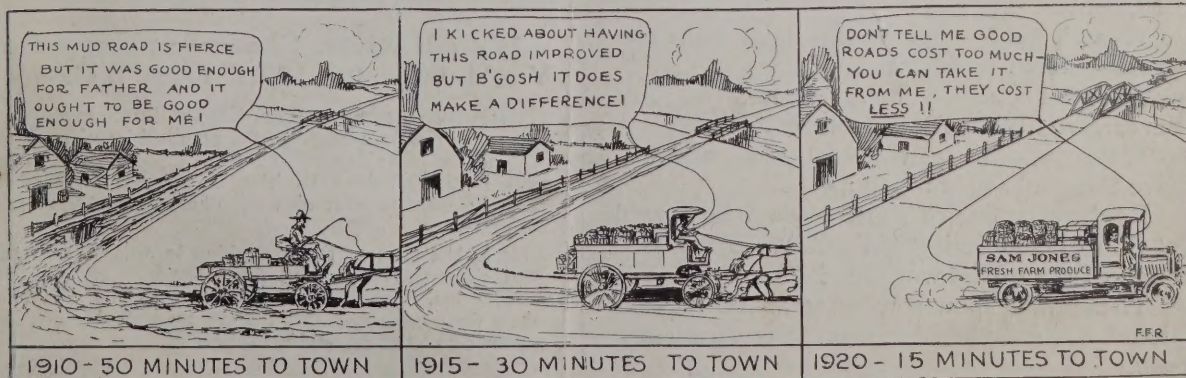
Don't get the damfool idea that, just because you may not happen to be "up near the top", your work isn't noticed. That it makes little difference whether you just "get by", or really do your best and utmost.

It does make a difference. It makes a difference with your work—but it makes a bigger difference with *you*.

If you don't think you are where you ought to be, remember that the surest way to dig yourself out, and up, is to dig in like the devil.

Hoping you are same!

The Highwayman



The Evolution of a Hard-Shell Hick—illustrating the old saying that "The proof of the pudding is in the eating."

The Highwayman

The Highwayman

Published Monthly By The
State Highway Department, at Trenton, N. J.

The HIGHWAYMAN will be sent free upon application
to any citizen of New Jersey who is interested in
"More and Better Roads For New Jersey!"

THE HIGHWAYMAN

H. C. SHINN, *Editor in Chief*

Associate Editors

A. LEE GROVER R. B. GAGE
C. F. BEDWELL EDWARD E. REED
CHAS. FISHBERG

Managing Editor

F. F. ROCKWELL

State Highway Commission

Governor EDWARD I. EDWARDS, *Ex Officio*

Hon. GEO. L. BURTON, Chairman	- - - - -	South River
JOHN FERRIS	- - - - -	Jersey City
GEORGE PADDOCK	- - - - -	Newark
WALTER F. WHITTEMORE	- - - - -	Newton
THOMAS E. COLLINS	- - - - -	Elizabeth
ALBERT S. L. DOUGHTY	- - - - -	Mt. Holly
CHAS. F. SEABROOK	- - - - -	Bridgeton

State Highway Association

President	- - - - -	A. W. MUIR
1st Vice President	- - - - -	W. A. JOHNSON, <i>Laboratory</i>
2nd Vice President	- - - - -	J. L. VOGEL, <i>Bridge Division</i>
3rd Vice Pres.	- - - - -	WILLARD EMMONS, <i>Equipment Div.</i>
4th Vice President	- - - - -	G. R. MOORE, <i>Right of Way</i>
5th Vice President	- - - - -	WM. J. MCGOVERN, <i>State Labor</i>
6th Vice President	- - - - -	H. D. ROBBINS, <i>Construction</i>
Executive Secretary	- - - - -	EDWARD W. O'BRIEN

A Deep Problem Which Deeply Concerns You

On another page of this issue (page 8) you will find some food for thought.

Read that page through from the first line to the last.

We are calling your attention to it here, because, as a general thing, a bunch of "resolutions" makes dry reading.

Not so in this case. With every fifth family in the United States owning a car, and the number constantly increasing, the problem of our national and state highways has, within a decade, assured a position of importance which could never have been prophesied for it. It is, without exception, the greatest civic problem of the hour.

What is *your* policy in connection with this great national problem?

"Haven't one"—you say—"Fact is, I've never given the matter much thought."

Well, the time has come when we all *must* give this problem some thought.

Read every line of those resolutions passed at the Omaha meeting of the American Association of State Highway Officials.

Then you'll know something about our National Highway problem, and how it concerns *you*.



A Lee Grover
Chief Clerk of the Department


You know Grover—smiling A. Lee.

Mr. Grover is no stranger to Trenton. He was born at Hutchinson's Mill in Mercer County—which of course is not far from the Capitol. This important event happened so recently as '89.

A. Lee passed on his smiling way (breaking many hearts as he went, we must suppose) through the county schools, and then attended the Rider-Moore and Stewart School of Business in Trenton, from which he graduated in 1907.

In 1911 Mr. Grover engaged in the electrical contracting business until 1913, when he accepted a position with the Department of Public Roads under Colonel E. A. Stevens, State Road Commissioner.

On the reorganization of the State Highway Department under the direction of General Goethals, as provided under the "Edge Roads Act" of 1917, he was appointed Chief Clerk of the Department and Secretary of the State Highway Commission.

Deliver To 



T. J. Wasser, State Highway Engr.,
Broad St Bank Bldg.,
TRENTON,
N. J.

The above is the way the Atlantic County Engineer, Mr. Alex. Howard Nelson, addresses the State Highway Engineer.

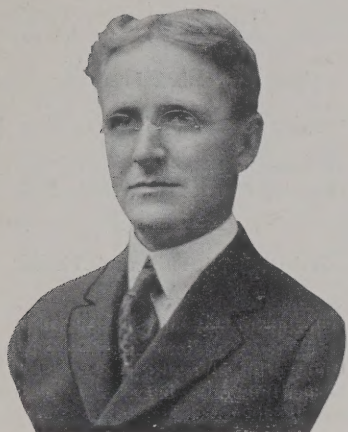


It's All Right, Chet——; Suppose You'd Been 20 Miles From a Garage?

They tell a good one on Chester Burn as follows: 'Chet was not accustomed to the peculiarities of an Essex car and the other day when he was going out over some work in the Northern Division, he stopped his car and when he went to start up again, he was unable to shift the gears.

He looked all over the darn thing in order to ascertain what the trouble was and finally gave it up and had someone haul him to the nearest garage about five miles, where the garage man took the key from the ignition lock and unlocked the gear-shift.

Chet says there is no use in having two locks anyway."



Chas. F. Seabrook

One of New Jersey's Highway Commissioners and Master Farmer of the United States

"C. F." was born "down on the farm," near Bridgeton in Cumberland County, New Jersey.

But in those days it wasn't *the* farm—just "a" farm; one you would never have noticed from thousands of others in the State.

Today "Seabrook Farms" is known not only throughout the State, but all over the world. Two railroads have extended their tracks, for miles, into the "farm yard" to get its business. Upwards of 3000 carloads of produce, all grown on the farms, is shipped yearly.

So you can see why Gov. Edwards, who was looking for "men who could do things," and who wanted the farmers of the State to be represented on the New Highway Commission, picked a real dirt farmer.



Maintenance of improved roads has often been neglected.
As a result, costly improvements have gone to ruin.
Insufficient funds for maintenance have been largely to blame.
No financial oversight can be more disastrous than failure to provide for our improved highways.
The character and volume of traffic determine the type of road to build, provided adequate maintenance is assured.
Economy, therefore, can be had only when proper maintenance is guaranteed.
No part of highway work requires more skillful supervision than maintenance.
A slipshod method of maintenance will ruin the best of roads.
Nowhere is there a greater field for application of sound business principles than in public highway maintenance.
Constant attention to details, combined with close study, produce efficiency.
Efficient maintenance—the secret of public highway success.

Oakland, Mich., County Highways.



The *small* mistakes are the *tall* mistakes.
(Stenographers take note)

"These small jobs will only take up a couple of days of Mr. Applegate's *hard* (yard) forces when conditions are favorable."

NEW JERSEY STATE HIGHWAY DEPARTMENT

December 1st, 1920

Executive

HON. EDWARD I. EDWARDS, Governor

The State Highway Commission
and

THOMAS J. WASSER, State Highway Engineer

ADMINISTRATION

A. LEE GROVER, Secretary and Chief Clerk

M. L. HOWELL - - - Chief Auditor and Accountant
CHAS. FISHBERG - - - Assistant Chief Clerk
MISS GRACE WILLIAMSON - - - Chief File Clerk
R. W. WILDBLOOD - - - Purchase Clerk

CONSTRUCTION DIVISION

C. F. BEDWELL, Construction Engineer

G. R. MOORE, Ass't Construction Engineer

R. A. MEEKER - - - Right of Way Engineer
C. A. MEAD - - - Bridge Engineer
THOMAS GEORGE - - - Acting Supt. of State Labor
C. A. BURN - - - Northern Division Engineer
H. D. ROBBINS - - - Central Division Engineer
J. A. WILLIAMS - - - Southern Division Engineer

MAINTENANCE, EQUIPMENT AND PROJECTS DIVISION

EDWARD E. REED, Assistant State Highway Engineer

A. W. MUIR - - - Superintendent of Maintenance
N. C. APPLEGATE - - - Superintendent of Equipment
A. D. BULLOCK - - - Projects Engineer
H. C. SHINN - - - Engineer of Special Assignments

TESTING LABORATORY

R. B. GAGE, Chemical Engineer

J. G. BRAGG - - - Senior Testing Engineer
F. H. BAUMANN - - - Senior Testing Chemist

Famous Sayings of Infamous Highwaymen

CHARLES HURLEY: "The reports were late."

T. J. GEORGE: "I'll see the boss about that tonight."

C. A. BURN: "A-L-L right" (or) "Where's my pipe?"

WM. F. MCGOVERN: "It's a lot of money, but he's a good man."

JOHN L. VOGEL: "Now keep this under your hat."

D. W. KRELLWITZ: "When I laid out the Sunnyside Yards." (or) "She's my cousin."

CLOSSON: "No—it won't do."

CHAS. WILMOTT: "When I worked with the Public Service."

APPLEGATE: "There are only two things that can happen to a pump."

G. W.: (In distress at the Highway Party). "Oh! I forgot the little hairpins in my head."

MISS LAUGHRY: "They haven't any Angel cake, but I can get some good chocolate layer cake with nuts all around."

J. NEWMARK: "Well, where is he then."

R. J. DELANEY: "Your records are wrong."

E. R. SHERBAUM: "Well, why don't you say what you mean?"

T. E. OLSEN: "As a matter of fact—"

A. J. LICHTENBERG: "It can't be built for that—The material costs that much."

H. D. ROBBINS: "Well,—I'll tell you."

COMM. DOUGHTY: "Well,— as the fellow said."

NJ
HE
356
N5
H5
Feb.
1922
C. J

Highway Contractors' Column

The Highway Contractors' Association of New Jersey was represented at the National Good Roads Convention at Chicago, Ill., from January 16th to January 20th, inclusive, by about half of its membership. One can readily see from this the interest and enthusiasm which the contractors of this Association are putting into their business. They attended the Convention in order to get new ideas on road equipment and (new) handling of materials in order to expedite their work and perform better work for the State, Counties and Municipalities, thereby saving the public considerable money and a great amount of inconvenience.

They returned to dear old Jersey with many new ideas pertaining to the highway business and will endeavor to put them into practice this year. SO, LET'S GO!

The following is a list of the members of the Highway Contractors' Association of New Jersey, and we feel certain after you have perused the names of the various contractors and firms of this list you can see that the Association is composed of reputable and responsible contractors that are doing their utmost to put the contracting business on the high plane on which it should be: LOOK THESE OVER, FOLKS!!!

James J. Barrett, Trenton, N. J.
 Jos. F. Burke, Plainfield, N. J.
 Cassidy & Homan, 618 Washington St., Cape May City, N. J.
 Everton Corson, Ocean City, N. J.
 Wm. Penn Corson, 1141 Sycamore St., Camden, N. J.
 Antonio DeLucia, 52 Bayard St., Trenton, N. J.
 M. Irving Demarest, Sewaren, N. J.
 Carroll H. Earl, McFadden Bldg., Hackensack, N. J.
 Earl-Lansdell Co., 271 James St., Hackensack, N. J.
 East Jersey Bridge Co., Perth Amboy, N. J.
 Wm. Eisenberg, Woodbine, N. J.
 Franklin Contracting Co., 20-32 Washington Place, Newark, N. J.
 J. B. Gilligan-Casey Co., 919 Broad St., Newark, N. J.
 John W. Heller, P. O. Bldg., South Orange, N. J.
 E. C. Humphrey, Hackensack, N. J.
 O. G. Julian Eng. & Cont. Co., No. 1 Exchange Place, Jersey City, N. J.
 Chas. T. Kavanagh, 32nd & Prospect St., Bayonne City, N. J.
 John M. Kelley Cont. Co., Federal St., Camden, N. J.
 Liddle & Pfeiffer, Perth Amboy, N. J.
 McDermitt Inc., 141 S. 8th St., Newark, N. J.
 Wm. P. McDonald Const. Co., 17 W. 42nd St., New York City.
 Miles-Tighe Const. Co., 610 Drake Bldg., Easton, Pa.
 E. Riley Mixner Co., Goshen, N. J.
 Nesto Construction Co., 64 State St., Newark, N. J.
 New Jersey Const. Co., Hackensack, N. J.
 Newark Paving Co., 133 First St., Newark, N. J.
 Northern Const. Co., 423 Amherst St., East Orange, N. J.
 The Osborn & Marcellis Co., Upper Montclair, N. J.
 Rees-Taylor Inc., American Mechanic Bldg., Trenton, N. J.
 T. H. Riddle, New Brunswick, N. J.
 Richards & Gaston Inc., 110 S. Bridge St., Somerville, N. J.
 Ross & Whelan Inc., Broad St. Bank Bldg., Trenton, N. J.
 Salmon Bros., Netcong, N. J.
 Ralph Sangiovanni, Borden-town, N. J.
 Sampson & Reuter, 221 Catherine St., Elizabeth, N. J.
 H. N. Scott, Cranbury, N. J.
 Conrad Sebolt, 16-18 Richmond St., New Brunswick, N. J.
 L. J. Sieling, Second National Bank Bldg., Red Bank, N. J.
 Sigafos & Poore, Riegelsville, Pa.
 Standard Bithulithic Co., 50 Church St., New York City
 Michael Staub, Swedesboro.

Thompson & Glickman, Freehold, N. J.
 Wm. Turkington, 231 Highland Ave., Trenton, N. J.
 Tri-State Construction Co., 26 S. Laurel St., Bridgeton, N. J.
 Union Paving Company, 30th & Locust Sts., Philadelphia, Pa.
 Utility Construction Co., 5 Spring St., New Brunswick, N. J.
 Graham VanKeuren, 76 Montgomery St., Jersey City, N. J.
 Philip Jannarone, 20 Harrison St., Nutley, N. J.

A Little Of This and That MISTAKES

JOHN M. KELLEY, (Contributed)

When the plumber makes a mistake he charges twice for it.

When a lawyer makes a mistake it is just what he wanted, because he has a chance to try the case all over again.

When a carpenter makes a mistake it's just what he expected.

When a doctor makes a mistake he buries it.

When a judge makes a mistake it becomes the law of the land.

When a preacher makes a mistake nobody knows the difference.

But when a contractor makes a mistake—Good night! he pays dearly for it.

EVERETT CORSON: "If a contractor would say all the mean things a woman can say, you would hear some high class cussing.

CARROLL H. EARL: "Kid McCoy's eighth wife is seeking a divorce. This recalls an old saying: 'I love my wife, but oh you kid'."

AN APOLIAN FROM CHICAGO: "Colonel, shall I brush you off, sir?" asked the porter. "No," replied Fred. Schneider, "I shall get off in the usual way."

WM. PENN CORSON: "Now the killjoys want to eliminate tobacco from the tournament. Why not pass a general law making all happy persons criminals, and be done with it?"

O. G. JULIAN: "You can't choose your own name, but you can select your own teeth."

A. B. WHELAN: "A friend of mine remarked that the fellow with a full cellar has a lot of boozen friends."

T. H. RIDDLE: "A swinging door of a business man's office says: 'Push', and the swinging door of the City Hall says: 'Pull'."

PETER STAUB: "Swedesboro is a fine place, but oh you Chicago!"

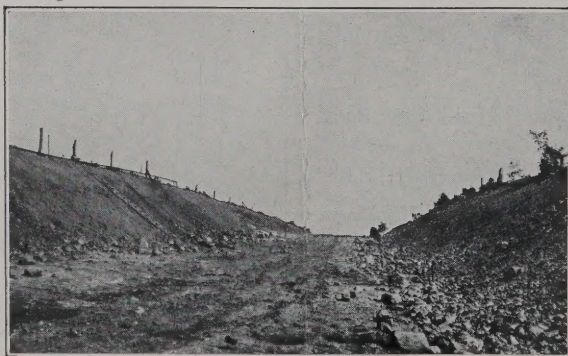
RALPH SANGIOVANNI: "Al, no more Chicago for me!"

JOE BURKE: "There may be no royal road to learning, but the chief trouble with the system that is being complicated by the educational faddists is that they are making too many detours."

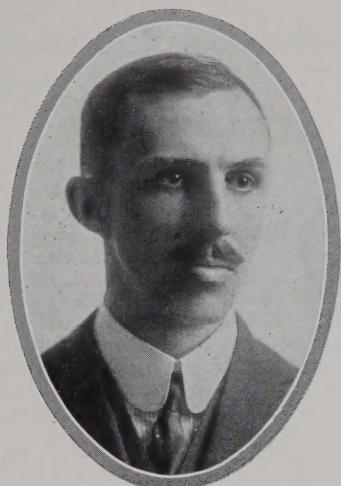
News Item

The terrific snow storm of January 28th, 29th and 30th demonstrated better than anything else could the greater practicability of the New Jersey busses when confronted by unusual conditions. In many places they kept right on ploughing through when the trolley cars gasped and gave up.

Mr. Editor, give credit to Mr. Thomas J. Wasser, State Highway Department, and Highway Contractors Association of New Jersey for their cooperation in keeping the highways free from snow, in order that busses and other traffic would not be halted in their movements.



More of the State Labor forces' good work—cut at top of Jugtown Mountain. (Route No. 9; Section 1)



G. Roland Moore
Assistant Construction Engineer

* * *

My Job

Sent in by G. R. Moore

*It isn't as big as the other chap's
With the flaming sign,
It isn't as marked as your own, perhaps,
But it's mine.
Just my own little job to hold down tight,
Freeze to and stand to
With man's strength and might.*

*It doesn't go down to the golden ways,
Sun kissed and alight,
It isn't all laughter and cloudless days,
But it's mine, all right,
My own little job that I have to do,
Earnestly, faithfully, fearlessly, too.*
—Bunce-Kinder Company in
Telephone Review, N. Y.

Introducing Mr. G. R. Moore

Boys, meet the Assistant Construction Engineer.

Mr. Moore is a graduate of the Rensselaer Polytechnic Institute.

For a year after leaving Rensselaer, he was instructor of Civil Engineering.

Civil Engineering degree was received from the Rensselaer Polytechnic Institute in 1909, followed by one year appointments as Instructor of Civil Engineering at the University of Pennsylvania in 1910.

In 1910 was engaged with the Pennsylvania Railroad Company, Engineering Forces, on heavy railroad construction, following which, one year was spent in private practice of Municipal Engineering and a short period in bridge designing and construction, with Mercer County, New Jersey.

After that he was appointed Assistant Professor of Civil Engineering at the University of Cincinnati, Ohio, and engaged there in Construction, Research and General Engineering work for a period of four years.

In 1917 Mr. Moore entered the employ of New Jersey State Highway Department as Chief of Party, and successfully held the following positions up to the present time: Chief of Party, Resident Engineer, Asst. Division Engineer, Asst. Right of Way Engineer, Asst. Construction Engineer.



A scene at the Budd Lake job where the State Labor forces were employed

Differentials on Cement Orders Prohibited

An Open Letter to the Highway Commission

In case you are not entirely familiar with the conditions complained of, I wish to call your attention to the fact that in certain localities, and I presume in all states, it has become the custom of the various manufacturers of Portland Cement to permit the retail dealers to charge what is known as a "differential" on all orders placed in the territory normally served by themselves, and out of this has developed a condition which enables the retailer to penalize the public to the extent of any charge he wishes to make, with the further result of thereby adding very greatly to the present burdensome cost of public construction. As a result of this condition, steps were taken to secure the following order, entered by the Corporation Commission of this State on the 16th day of December, 1921, in re R. G. Marriott vs. Oklahoma Portland Cement Company, a Corporation, etc., et. al.

"IT IS THEREFORE THE ORDER OF THE COMMISSION, * * * that the respondent companies, the Oklahoma Portland Cement Company * * * and the Dewey Portland Cement Company * * * be ordered to desist from the practice of refusing to supply Portland Cement to the State of Oklahoma, the counties thereof and the municipal subdivisions of the State of Oklahoma, for use in construction of public works, except upon condition that the local distributing agencies be allowed to exact a commission for such sales; and that said respondents are ordered to render their services and to furnish their commodity upon reasonable terms, without discrimination, in carload lots direct from the factory to any such municipality or its contractor for the use in the construction of any public work undertaken by the State, county or municipality thereof.

A similar order was entered by the Corporation Commission applying to purchases by individuals.

The above orders were entered after a full hearing, based on the complaint arising out of the present marketing methods adopted by the members of the Portland Cement Association.

At this hearing, all parties in interest were present in person and by counsel.

You will understand, of course, that this differential bears no relation whatever to the selling efforts of the retailer, these efforts being entirely non-existent, as the sales are almost invariably made by the selling organization of the particular manufacturer of this product.

It was in order to procure for the construction interests and thereby to the benefit of the public, a wholesale market for bulk materials that this order was sought. The result of the entering of this order has had a demoralizing effect on the sales organization of the two defendant companies and should the order be sustained by the Supreme Court, an entire reorganization of the selling methods of the manufacturers of cement throughout the country will be called for.

It was suggested to me the other day by a gentleman representing these interests, that if an order to the same effect could be entered in all of the States, so that it became nation wide, the cement interests would not be sorry to see this done, and that in most cases they would prefer to deal with the contractor direct.

I am, therefore, addressing a letter to the Highway Commission of every state in the Union, asking them if they would not co-operate with us to the extent of putting into operation such machinery as their laws provide, which shall produce this much-to-be-desired result.

If there is any further information which you may desire, this office will be glad to furnish the same wherever possible.

R. G. MARRIOTT, Secretary.

The Highwayman



Contractor Earle realizes the importance of "morale" in his forces—hence the comfortable quarters.

The Men Who Make the Roads

*O, Brothers, when you motor out
In double fours or flivvers,
To lamp the landscape round about
And agitate your livers.
The while your gas-consumer flies,
O'er beaten trails and by-ways—
O, breathe a prayer and bless the guys
That built the bloomin' highways.*

*Be mindful of their lowly lot,
They rarely ride as you do.
You drive nice cars, but they do not,
At least a very few do.
And life would be a dreary hike
If it were not for the fellows like
The ginks who build the highways!*

C. WILES HALLOCK.



Three Men's Conception of the Work They Were Doing

A man once saw three men chipping away at a block of stone. He asked the first man he came to what he was doing. He replied that he was making \$7.00 a day.

He asked the second man what he was doing. He said he was chipping off the stone.

He asked the third man what he was doing. He replied that he was building a cathedral.

It will be seen that only one of these men had the proper conception of the importance of his work. This might be applied to roads and if any man employed shoveling stone into a wheelbarrow to feed a concrete mixer was asked what he was doing, he might properly say that he was building a highway instead of simply making so many dollars per day or shoveling stone into a wheelbarrow.

Construction of the Road from Absecon to Smithville New Jersey State

By RALPH

Bids for this work were received on June 8th, 1921, but the contract was not delivered until August 20th, and work was actually started on that date. The road is a Warrenite surface on a 6 in. concrete base with 5 foot gravel shoulders on each side. The length of the road from Absecon to Smithville is 5.7 miles. The placing of concrete was commenced on August 23d and completed at 10 o'clock of Thanksgiving Day, November 24th. The total yardage was 70,132 square yards. This same yardage of concrete was covered with a Warrenite Bithulithic pavement and the work of laying this pavement was completed about 1 month after the completion of the concrete base. There was approximately 20,000 yards of excavation from the whole road and about 30,000 square yards of gravel shoulders and about 3,000 square yards of concrete gutter.

For the purpose of unloading the material from the cars there was a plant established on the White Horse Pike about 1 mile from the junction of Route No. 4 with the White Horse Pike, and all materials were hauled over that road. The contractor, C. H. Earle, of Hackensack, New Jersey, had a siding at his unloading plant and unloaded his material with a 20-ton Ohio crane. Storage piles of pebbles and sand were created on either side of the bin which shows in the picture, and all material was passed through this bin, one side of the bin being for sand and the other side for stone.

Underneath the bin was placed 4 steel hoppers, 2 for sand and 2 for stone. The hoppers were made to contain just the required amount of each material, the stone hoppers containing 17½ cubic feet of stone and the sand hoppers containing 10½ cubic feet of sand. The trucks used for conveying this material to the mixer on the road were Autocars with a center board so that each truck carried 2 batches of dry material.

On entering the yard at the plant these trucks were backed under the hoppers, received their load of sand and stone and then were run to the back of the yard where 3½ bags of cement



A steam-shovel was used to fill the big dumping bin, from which the trucks were loaded automatically



If this isn't a trim little road building outfit, then we never saw one. The man who said contracting

on to Smithville, Route No. 4 of the Highway System

D. EARLE

were placed in each compartment of the truck either from an unloading platform at the car or from the unloading platform at the cement house, a Blawnox steel building 50 ft. x 30 ft., which was erected for the purpose of storing cement. After leaving the cement platform the trucks were run directly out on the road to the mixer.

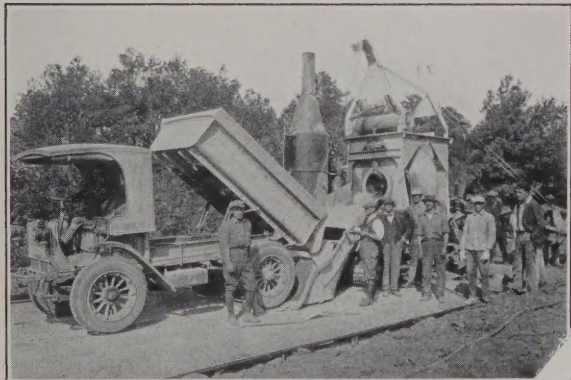
On arriving at the mixer the trucks were turned around, backed up to the skip and each batch was dumped separately directly into the skip of the mixer. The truck then returned to the plant for another load. The mixer used on the work was a Foote mixer and was so operated that there was no delay in the mixing of the material while the skip was being loaded.

For the purpose of conveying this concrete mix 14 Autocars were used on this work and they travelled back and forth at about a 4 minute headway. These trucks were housed in a Blawnox steel building 50 ft. x 30 ft. Reference to the picture will find this garage at about the center of the plant. To the south of it are buildings for housing some of the men and a Blawnox 15 ft. x 20 ft. office building. All of these buildings are erected so that they may be taken down and erected at any other site.

This plant has its own gasoline tank from which gasoline for the trucks and equipment are supplied. A driven well supplied water to the entire plant and equipment.

The heavy grading was done with an Erie shovel and the light grading was done with a 10-ton Holt tractor pulling an Adam's grader and a small Cleveland tractor pulling a Fresno scraper. The photograph shows a 5-ton Holt tractor, but this was afterwards exchanged for a 10-ton, and while the 5-ton tractor was in use at the time the picture was taken the 10-ton tractor did most of the work of this nature. There were 2 rollers used on the work, both 10-ton rollers of the Buffalo-Pitts type.

At different points along the line of the road wells were



Dumping a "batch" of dry materials into the "skip" of the Foote paver



The cement was handled directly from the freight cars into the trucks which delivered the batches to the paver

driven to obtain water for the use of the concrete mixer and other pieces of machinery and for sprinkling the sub-grade before the concrete was laid and for sprinkling the concrete base during the curing period. To furnish the supply of water necessary for this work 15,000 feet of 2 in. pipe with the necessary fittings was used.

It is interesting to note that the daily reports show that there were only 34 bags of cement used on this work in excess of the theoretical requirement.

The asphalt surface of the type known as Warrenite Bithulithic was laid behind the concrete commencing about 1 month after the concrete was first laid and progressed so that all of the concrete base had from 2 to 3 weeks to cure before the top was placed.

The estimated cost of this work was \$395,557.00 and the actual total cost was \$395,767.25.



An Error: They Were Four-Wheelers

The December issue of THE HIGHWAYMAN on Page No. 6, lower right hand corner, contained a photograph of a Four Wheel truck with snow plow attached. Our snow equipment includes four wheel drive trucks manufactured by the Four Wheel Drive Auto Company, and four wheel drive trucks manufactured by the Nash Company.

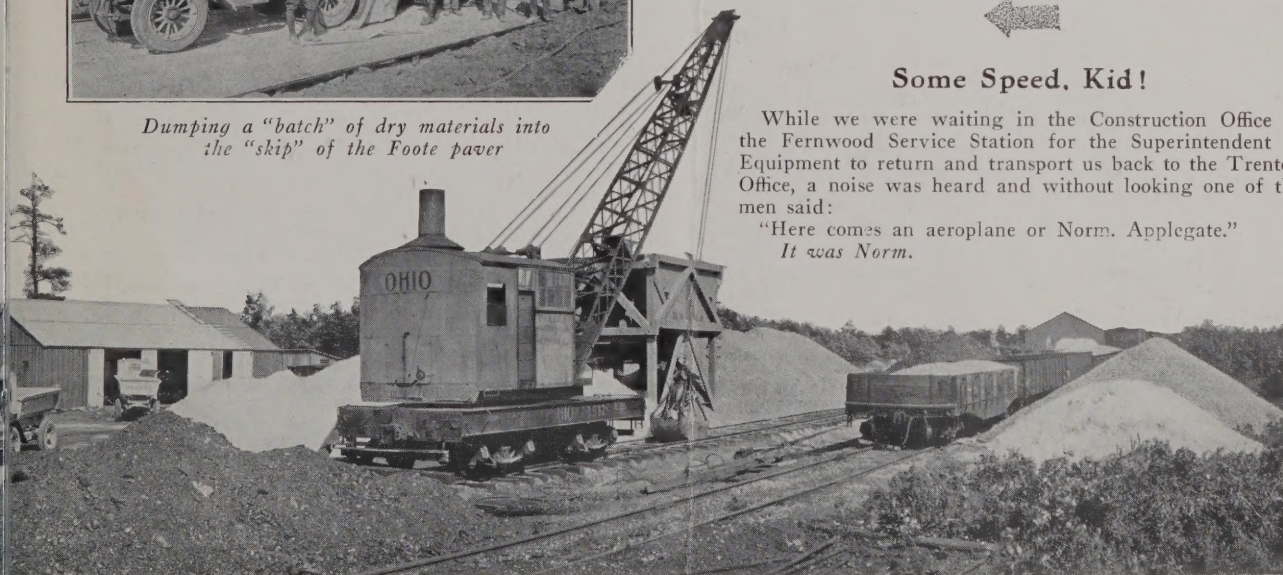
The title of the picture states that the truck in question is a Nash-Quad, when as a matter of fact the lettering on the front shows that it is manufactured by the Four Wheel Drive Company.



Some Speed, Kid!

While we were waiting in the Construction Office of the Fernwood Service Station for the Superintendent of Equipment to return and transport us back to the Trenton Office, a noise was heard and without looking one of the men said:

"Here comes an aeroplane or Norm. Applegate."
It was Norm.



Highway Comment in Review and Outlook

Resolutions Passed At Annual Meeting of State Highway Officials

During the week of December 8, those most interested in highway development focused their attention on the meeting of the American Association of State Highway Officials which was held at Omaha, Neb. That much forethought had been given the plans submitted is shown in the resolutions which were passed and which we feel convinced will receive the endorsement of all who have the development of our country and betterment of civilization at heart. Following are some of the resolutions:—

BE IT RESOLVED: That the American Association of State Highway Officials welcomes the establishment by the National Research Council of the Advisory Board in this much needed effort to stimulate and co-ordinate highway research.

We wish to extend to the State of Illinois and to the Federal Bureau of Roads, our appreciation of their experiments and enlightening reports on highway design. We hope there will be available before our next annual meeting a comprehensive report of the results of the noteworthy experiment at Pittsburg, Cal.

WHEREAS, Advertising signs upon, along and adjacent to public highways serve no good purpose but, on the contrary, are a public nuisance in that they destroy the beauty of our landscapes, impair vision in dangerous places, and add to the difficulty of properly guiding and warning traffic.

BE IT, THEREFORE RESOLVED: That this Association pledges its support to any proper movement to eliminate such advertising signs and urges upon its individual members the importance of aiding and encouraging legislation in all states to effect said elimination, to the end that our highways may be fully and safely occupied and enjoyed by the public for the use of whom they are acquired and built.

WHEREAS, Grade crossings of railroads and interurban lines with our highways constitute a grave menace to human life and property, and

WHEREAS, The increasing travel on our highways is each year making the danger greater and the list of dead and injured longer,

BE IT, THEREFORE, RESOLVED, That this Association pledges itself collectively and as individuals to use its best efforts to speed up the properly planned elimination of grade crossings to the end that all of them, especially on the main travelled highways, shall be eliminated as rapidly as funds can be made available by the public and the railway companies.

BE IT FURTHER RESOLVED: That we condemn, as against public policy, the present attitude of negation adopted by too many railroad companies and by too many state railroad commissions, because said attitude has resulted in the slackening of elimination work at a time when the protection of the traveling public is more urgent than ever before.

BE IT RESOLVED, That the American Association of State Highway Officials heartily endorse the action of Congress in adopting a policy of Federal Aid for highways, to be applied to a definite system of highways as provided in the Federal Highway Act, which went into effect November 9, 1921.

As officials of the State Highway Departments upon whom this law imposes certain requirements and obligations, we pledge our hearty and unqualified support to the Federal Bureau of Public Roads in carrying out the provisions of said Act.

Inasmuch as the Act contemplates continued Federal participation with the states in highway improvement, we realize and emphasize the absolute necessity of a definite policy projected far enough into the future to make possible the economic and satisfactory planning and carrying out of the intent and purposes of the Act.

To this end we endorse H. R. 8978 introduced by Hon. Roy Woodruff, which bill authorizes the appropriation of \$100,000,000 annually for five years beginning July 1, 1922, as a general Federal Aid appropriation, and we also urge that adequate provision be made in said bill for the continued development of highways in and adjacent to the

forest areas and Indian Reservations under unified control.

The adoption of this five year program is necessary to enable the states, through their Legislatures, to make proper provisions for the requisite state cooperation in this enterprise.

WHEREAS, There are many inequalities existing in the present freight rates on road materials, and

WHEREAS, The highway work of the States and the Federal Government should not be required to pay more than its fair share on the cost of keeping up our system of railroad transportation.

BE IT THEREFORE RESOLVED, That the American Association of State Highway Officials urges upon the Interstate Commerce Commission and upon the various State Railroad Commissions (or equivalent state bodies) the importance of a review and comparison of the present rates on road materials and on other commodities, to the end that the present existing inequalities may be removed and the taxpayers' interests protected.

WHEREAS, By far the greater portion of the cost of modern highway construction and maintenance is due to the necessity of adequately providing for the movement of persons and goods by motor vehicles, and

WHEREAS, The taxes imposed upon real and personal property have, in many states, reached almost the maximum possible to be borne under present economic conditions, and

WHEREAS, The principal users of our highways, the operators of motor vehicles, can be justly charged an adequate amount for benefits derived and savings secured from and by our program of highway construction and maintenance, and

WHEREAS, in most of our states the owners of motor vehicles are paying an insufficient portion of the cost of the state's highway program, as compared to the portion of the cost raised by taxation on general property, despite the fact that the individual owner is always willing to pay his fair share of the cost.

NOW, THEREFORE, BE IT RESOLVED, By the American Association of State Highway Officials that we urge upon all states the fairness and the necessity of collecting an adequate portion of the cost of highway programs from the users of motor vehicles. This fair share is not only the cost of maintenance of modern highways, but includes also a fair proportion of the cost of new construction, because much of this latter cost is due to the necessity of adequately providing for motor traffic.

BE IT FURTHER RESOLVED, that we recommend appeals to the individual motorist for his support of this policy of providing for a fair distribution of the cost of highway improvement, because we believe that when he is made to realize that only in this way can a continuance of the required highway program be guaranteed to him, he will, being a fair minded American citizen, readily respond to such appeals.

WHEREAS, The American people have embarked upon a program of highway improvement involving the expenditure of many billions of dollars in the next decade, and

WHEREAS, the effective expenditure of these billions of dollars, and the proper carrying out of these programs depends upon the ability and efficiency of the Federal and State Highway Departments, and

WHEREAS, the American people have not so far appreciated the magnitude of this enterprise or the necessity of permanent and efficient organizations to carry it on, and

WHEREAS, if our people are not soon brought to a realization of these facts, disaster is bound to follow, bringing grave loss to them and reflecting discredit upon all engaged in this enterprise.

BE IT THEREFORE RESOLVED, That this organization pledges itself to work for efficiency and permanency in the personnel (of all departments engaged in this enterprise, for the elimination of partisan politics from the operation) and for the reward of ability wherever found.

BE IT FURTHER RESOLVED, That each individual member who is a believer in the dignity and importance of this work shall do everything in his power to sell the idea of clean cut business efficiency in highway operations to his legislative body and to his people.

The Calf Path

*A calf walked home as good calves should,
But made a trail all bent askew,
A crooked trail, as all calves do.
Since then three hundred years have fled,
And I infer the calf is dead.*

*But still he left behind his trail,
And thereby hangs my mortal tale.
The trail was taken up next day
By a lone dog that passed that way.
And then a wise bellwether sheep
Pursued the trail o'er vale and steep;
And drew the flock behind him, too,
As good bellwethers always do.
And from that day, o'er hill and glade,
Through those old woods a path was made.*

*This forest path became a lane
That bent and turned and turned again;
This crooked lane became a road,
Where many a poor horse with his load
Toiled on beneath the burning sun,
And traveled some three miles in one,
And thus a century and a half
They trod the footsteps of that calf.*

*The years passed on in swift fleet,
The road became a village street;
And this before men were aware,
A city's crowded thoroughfare.
And soon the central street was this
Of a renowned metropolis.*

*And men two centuries and a half
Trode in the footsteps of that calf.*

*Each day a hundred thousand rout
Followed the zigzag calf about,
And o'er his crooked journey went
The traffic of a continent.
A hundred thousand men were led
By one calf near three centuries dead.
They followed still his crooked way,
And lost one hundred years a day;
For thus such reverence is lent
To well-established precedent.*

*A moral lesson this might teach
Were I ordained and called to preach;
For men are prone to go it blind
Along the calf paths of the mind;
And work away from sun to sun
To do what other men have done.
They follow in the beaten track,
And out and in and forth and back,
And still their devious course pursue,
To keep the path that others do.
They keep the path a sacred groove,
Along which all their lives they move;
But how the wise old wood gods laugh,
Who saw the first primeval calf.
Ah, many things this tale might teach—
But I am not ordained to preach.*

—Selected.



Serviceable Concrete Plus Concrete Service

When you start in on a job you want cement
you can depend on.

That goes without saying.

But you want one other thing.

And that thing is *dependable service*.

We feel that the contractor who orders cement

from us, buys service and prompt delivery, also.

We assume that as part of our side of the
contract.

If you want not only good honest cement, but
also efficient, and *prompt*, service, let us take care
of you.

"For Cement you can depend on—use Dragon"

Lawrence Cement Co.

PHILADELPHIA

302 Broadway, NEW YORK

The Highwayman



Spreading the Gospel of Mudless, Dustless, All-Year Roads

WHEREVER you have seen one of these trucks at work you may be sure that GOOD ROADS have come to that community. For the Tarvia Truck Sprayer is the herald of smooth, dustless, mudless "all-year" roads that are less expensive to build and maintain than any other type of modern highway.

How about the roads in *your* community?

If you have *any* road problems—either construction, maintenance or repairs—put them up *today* to the engineers of our Special Service Department. Their advice, based on wide experience with every type of highway construction, is free for the asking—and it involves no obligation whatever on your part. Please address your letter to our nearest branch.

The *Barrett* Company

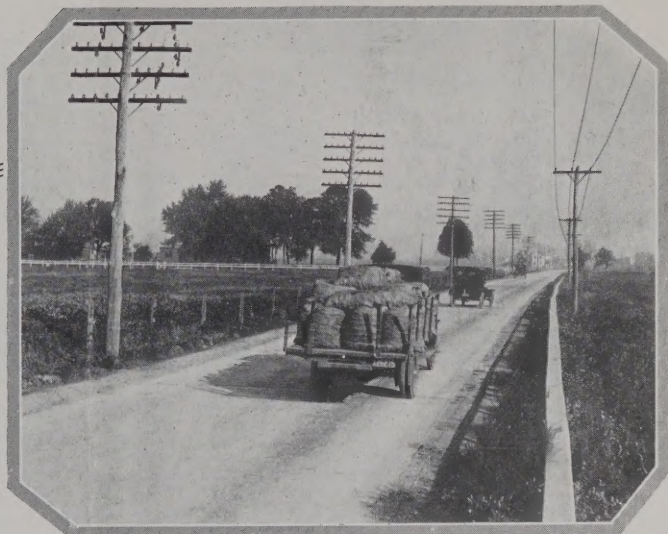
40 RECTOR STREET, NEW YORK CITY

C. C. Randolph - Telephone No. 2466-Plainfield
Ashley Burner - Telephone No. 2232-Plainfield

C. A. Baker, Jr. - - Telephone No. 323-Closter
H. M. Smith - - Telephone No. 96M-Riverton

"Let's get together
and talk cement"

The Road that Leads to Future Business



(Courtesy Portland Cement Association)

Every piece of pavement you lay, paves
the way to something else.

Either to a good reputation, or to a
"black eye."

That's worth keeping in mind when
you order your cement.

We repeat, "Vulcanite roads *stay* right,
because Vulcanite Cement is *made*
right."

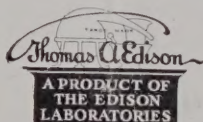
And with our plant capacity of
2,000,000 *tons* a year, we don't keep you
waiting on deliveries.

VULCANITE PORTLAND CEMENT CO.

PHILADELPHIA

BOSTON

NEW YORK



You Cannot Afford to Take Such a Dangerous Chance

Good weather; the gang broken in and working fine; the pav-
ing machine operating to full capacity; the job moving on schedule
time; a good profit in sight;—AND THEN—

Your cement fails to arrive!

Result: idle men; idle trucks; idle machines; but *overhead*
going right on and eating up profits.

We are working *now*, 24 hours a day,
in order that we can make immediate
shipments, in any quantity, next season.

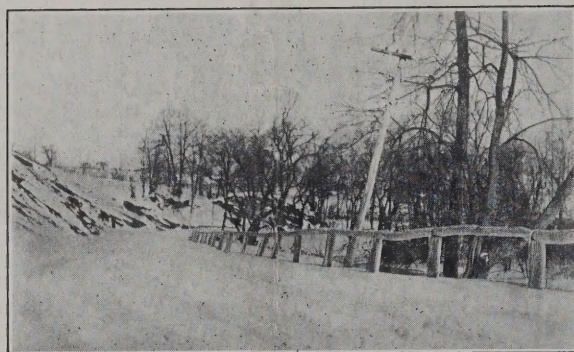
EDISON PORTLAND CEMENT CO.

NEW YORK

BOSTON

PHILADELPHIA

ALONG THE ROAD



*It looks pretty—if you don't have to go through it
in a car! (State Hill near Stephensburg, N. J.
Route 12, Jan. 13, '22)*

Boost For These Two Reforms

A "reform" has been defined as "something most people don't want, but a few are never happy till they get it."

That isn't true of the two things we are speaking of—the abolition of grade railroad crossings; and of unsightly signs along highways.

In connection with these two things, you will be interested in the stand taken by the nation's highway officials.

"Whereas, advertising signs upon, along and adjacent to public highways serve no good purpose but, on the contrary, are a public nuisance in that they destroy the beauty of our landscapes, impair vision in dangerous places, and add to the difficulty of properly guiding and warning traffic.

"BE IT THEREFORE RESOLVED: That this Association pledges its support to any proper movement to eliminate such advertising signs and urges upon its individual members the importance of aiding and encouraging legislation to this end."

"Whereas, Grade crossings of railroads and interurban lines with our highways constitute grave menace to human life and property, and

"Whereas, The increasing travel on our highways is each year making the danger greater and the list of dead and injured longer,

"BE IT, THEREFORE, RESOLVED: That this Association pledges itself collectively and as individuals to use its best efforts to speed up the properly planned elimination of grade crossings, especially on the main traveled highways."

The only way to bring these two reforms to pass, is to bring the pressure of public opinion to their support.

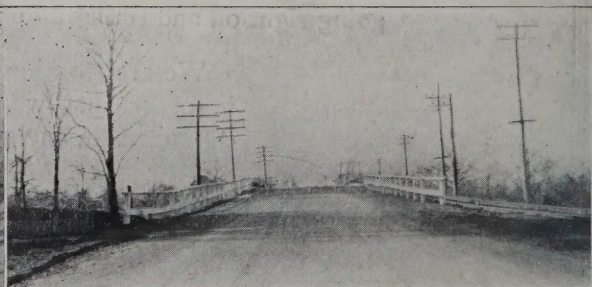
If you want to see our highways *safe* and *beautiful*, use your influence to set other motorists thinking along this line.



*He tried to cross the railroad track
Before the rushing train.
They put the pieces in a sack—
But couldn't find the brain!*



BEFORE



—AND AFTER

These two photos, taken from the same spot, show the elimination of the grade crossing at Kinkora on Route 2. The first was taken in April, 1920; the second in December, 1921, showing the completion of the overhead crossing and pavement. (Note the three trees at left, and the telegraph pole at right, in both photos.)

Road Tips



MONTHLY BULLETIN OF DETOURS

Adopted by the New Jersey State Highway Commission
Corrected to February 1, 1922

All detours posted with signs and blazed with "Arrows"

(Color signals to right will be used along all State roads as soon as possible.)

ROUTE NO. 1—Rahway-Elizabeth: Union County

Detour through Rahway will not be used after December 15th, when Route No. 1 will be open to Chestnut Street, Roselle. Thence over Chestnut Street to Route No. 9 at Roselle Park and thence over Route No. 9 to Elizabeth.

ROUTE NO. 4—Red Bank-Easton: Monmouth County

Road open to traffic.

ROUTE NO. 4—Absecon-Smithville: Atlantic County

Road open to traffic.

ROUTE NO. 5—Budd Lake to Hackettstown: Morris County

Not necessary to detour. New construction is completed along line of the old road. Present construction being along new right of way.

Local roads are in bad condition.

ROUTE NO. 8—Mullica Hill-Bridgeton: Gloucester, Salem, Cumberland Counties

Detour has been abandoned and road opened to all traffic.

ROUTE NO. 6—Woodstown-Salem: Salem County

Road open to traffic.

ROUTE NO. 8—Sussex-Unionville: Sussex County

Not necessary to detour, as the present road will be kept open and maintained for traffic during construction.

ROUTE NO. 9—Perryville to West Portal: Hunterdon County

Via Clinton, Glen Gardner, Hampton, Asbury, West Portal.

ROUTE NO. 10—Arcadian Way to Fort Lee Ferry: Bergen County

Not necessary to detour as entire construction is over new right of way.

ROUTE NO. 12—Denville-Parsippany-Pine Brook: Morris County

Denville, Tabor, Morris Plains, Morristown, Whippany, Hanover, Livingston, Roseland, Essex Falls, Caldwell and Pine Brook.

ROUTE NO. 12—Phillipsburg to Port Colden: Warren County

Via Phillipsburg, Bloomsbury, West Portal, Asbury, Washington and Port Colden.



This color **blue** on posts or signs indicates that road is running **North and South**.



Red shows that it lies **East and West**.

While **yellow** tells you that it takes a **diagonal** course **south-east** or **north-west**.



And **brown** indicates that it takes a **diagonal** course **north-east** or **south-west**.



For You— "The Highwayman"

Do you use roads? Do you want to know where they are being built, and what detours to take, each month?

Then send, **TODAY**, to

The Highwayman
New Jersey State Highway Department
Trenton, N. J.

Just ask to be put on The Highwayman's list. A postal will do.

Turn Over!

On the Back You'll Find the Map.

